

An Experience Management System for a Software Consulting Organization

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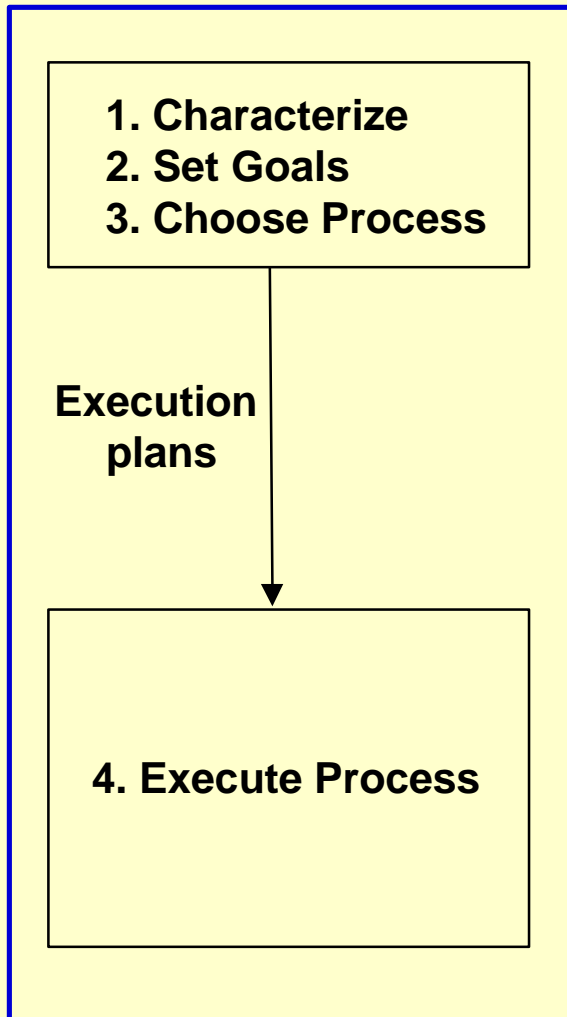
University of Maryland Baltimore County

Fraunhofer Center - MD

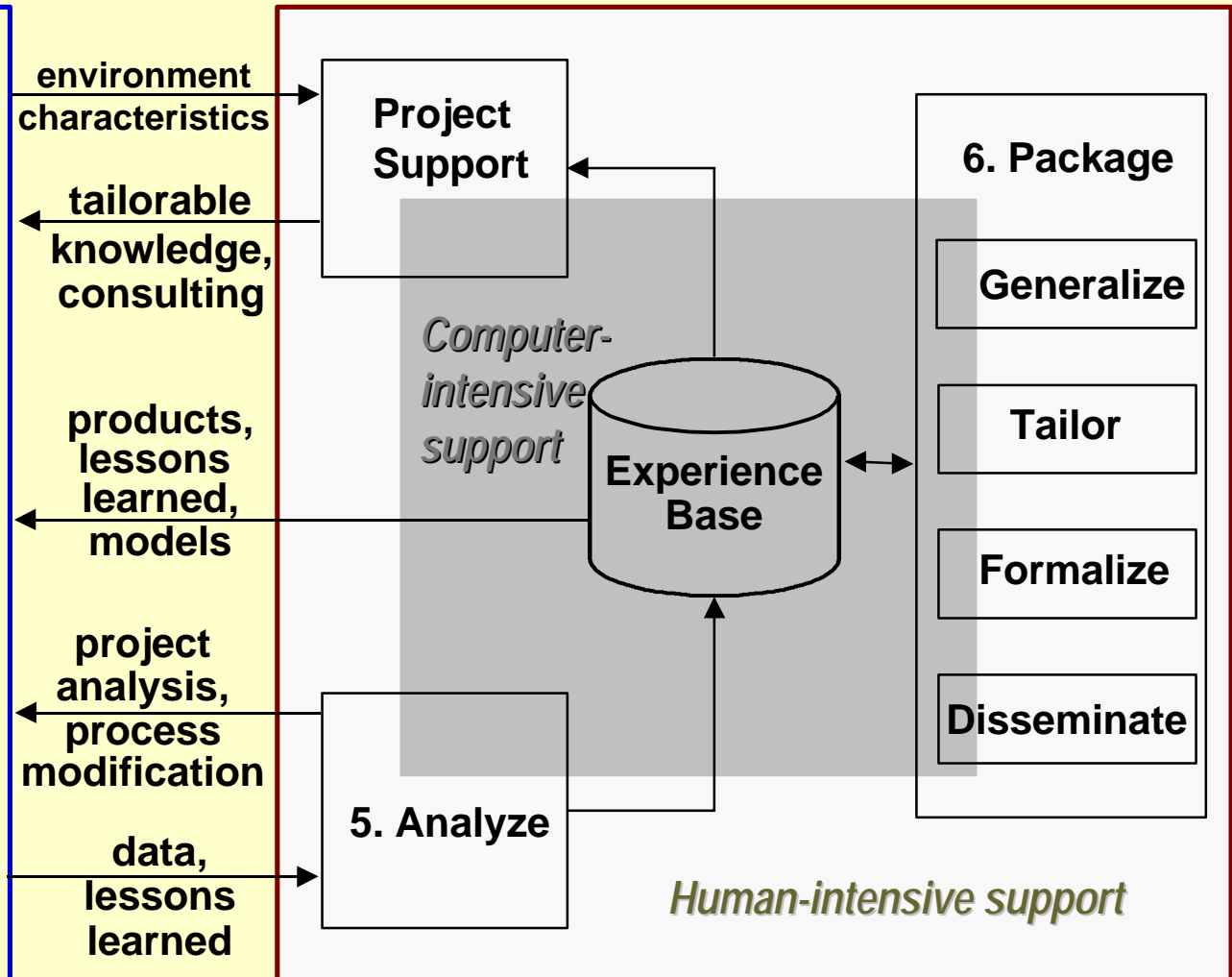
*Funding is provided by Q-Labs, Inc. and the Maryland
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The Experience Factory

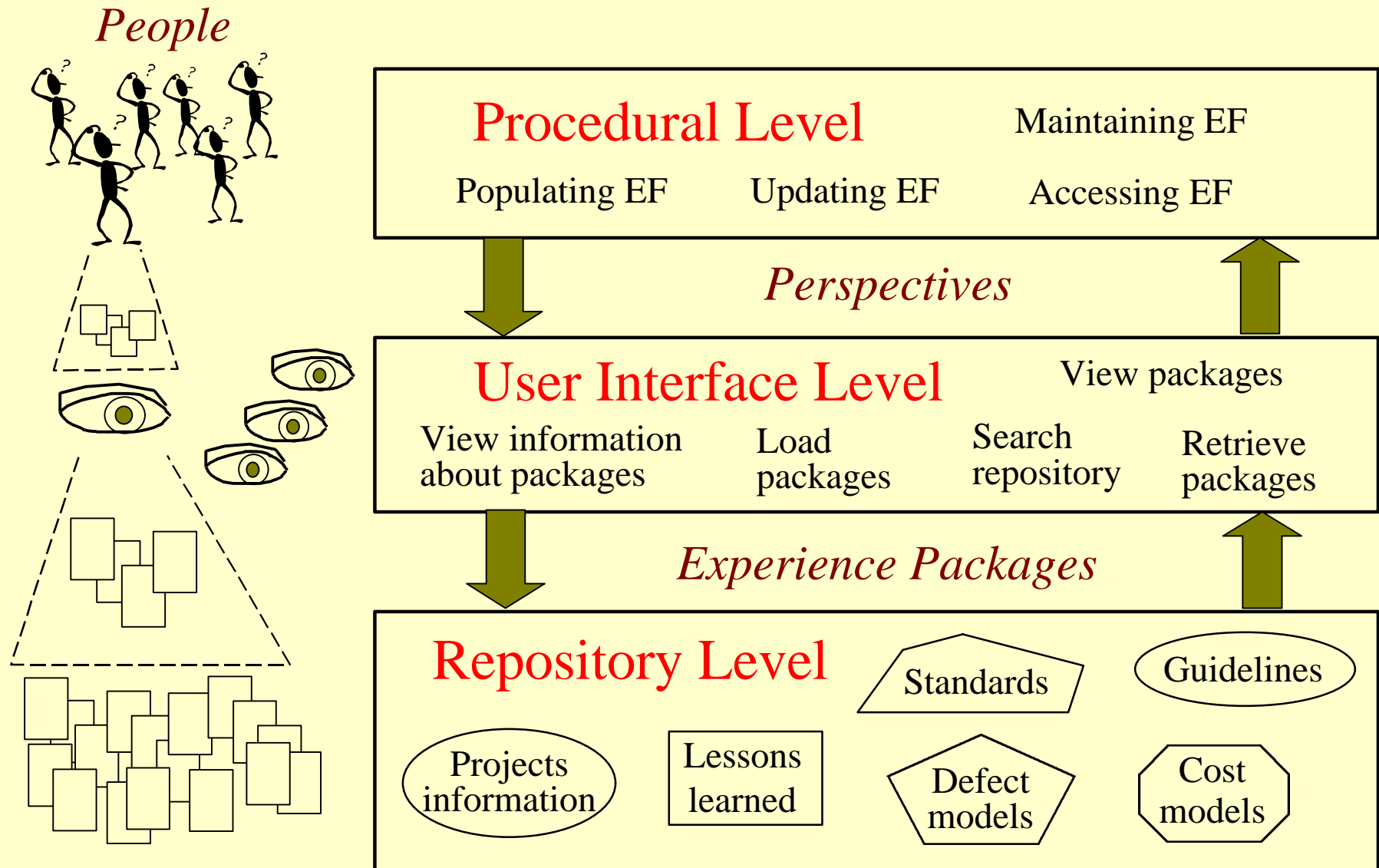
Project Organization



Experience Factory



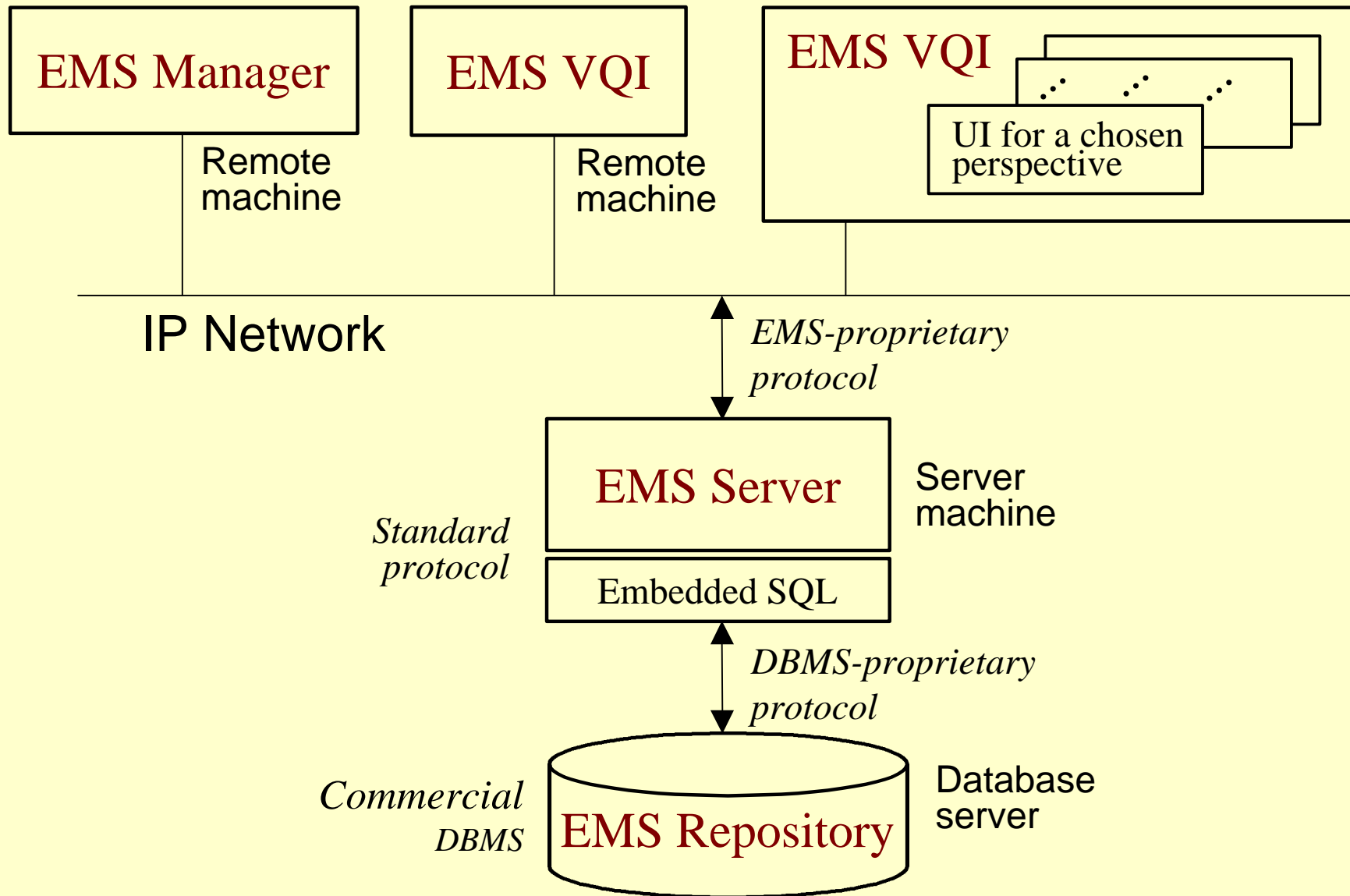
Experience Factory Support



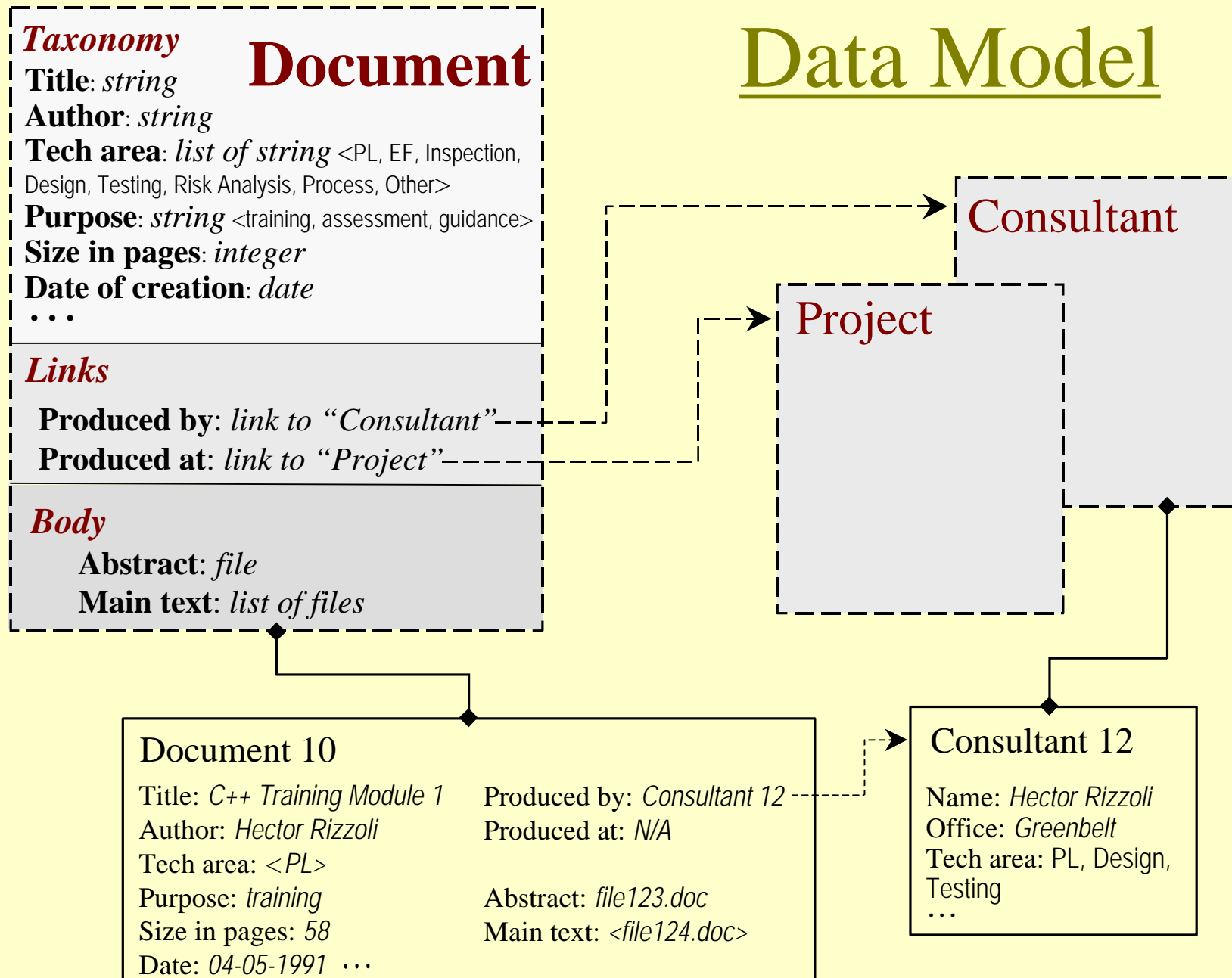
The Q-Labs EMS

- Q-Labs, Inc.
 - a multi-national software engineering consulting firm helping its clients implement state-of-the-art technologies
 - objectives: to allow each consultant to benefit from the experience of every other consultant
- EMS project
 - multi-faceted research effort in developing appropriate infrastructure for an Experience Factory
 - Q-Labs EMS is the first prototype EMS

System Architecture



Data Model



Visual Query Interface

The image displays a Visual Query Interface (VQI) with two main components: a document overview window and a spatial query visualization window.

Document Overview Window (Left):

- ef slides (training)**
a contribution of
rizolli; hector
from Q-Labs kaiserslautern
- Customer and project:**
 - Produced to: itt (education; university)
 - Technical area: software process- experience factory
- Document characteristics:**
 - Language: german
 - Size (in pages): 37
 - Date: 4/4/96
 - Medium: slides
 - Viewing application: power point
- [Go get it !](#)

Spatial Query Visualization Window (Right):

- Experience Management System**
 - System Perspectives Options
 - Selected perspective: **demo_document** (indicated by a red arrow labeled "selected perspective")
 - Refresh perspectives
- demo_document View**
 - System: customer
 - Visualization: A spatial query visualization showing a grid of points. A red arrow labeled "selected package" points to a specific point. A red arrow labeled "query devices" points to a cluster of points.
 - Reset button
 - Fields and values:
 - consultant: sahen, las (GoTo)
 - customer: aerospace ag (GoTo)
 - customer_primary_business: construction or re: (GoTo)
 - customer_secondary_business: aerospace (GoTo)
 - date: 1/5/96 to 5/31/96
 - doc_number: 1 to 100
 - language: ☒ english, ☒ german, ☒ swedish

Interface Prototype Evaluation

- **Prototype** included VQI, a simple data entry interface, and a small sample repository
- **Objective** was to evaluate basic interface design choices and attributes
- **Study design** included “think aloud” sessions with users and interviews
- Five **sessions** were conducted in May and June of 1999, each 1.5-2 hours

Evaluation Results

- Basic choices for search and retrieval interface and data model were **well received**
- Interface included some **unexpected benefits**
- Data entry interface was **unacceptable**
- Sample repository was **too limited and inconsistent**
- Evaluation was relatively **low-cost and high-benefit**

Conclusions

- The **first results** from a much-awaited line of research on developing **infrastructure** for Experience Factories
- **Interface prototype** of the Q-Labs EMS
- Prototype **evaluation**
- **Future** versions and extensions of EMS